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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,966	10/05/2005	Markus Neumann	DE 030122	6158
65913	7590	07/19/2007		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER JOHNSON, RYAN	
			ART UNIT 2817	PAPER NUMBER
			NOTIFICATION DATE 07/19/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary

Application No.

10/551,966

Applicant(s)

NEUMANN, MARKUS

Examiner

Ryan J. Johnson

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment and remarks received June 4, 2007 have been carefully considered. Claims 1-11 have been amended. The specification has been amended and the objection to the specification has been withdrawn.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knutson (U.S. Patent No. 3,581,239) in view of Knecht et al. (U.S. Patent No. 6,066,989) and Gade et al. (U.S. Patent No. 3,197,616).

6. Claim 1: Knutson discloses a device (Fig.1) for detecting the temperature of an oscillator crystal 40 that has a crystal vibrator 44, in particular in a mobile radio apparatus (although Knutson discloses this at column 1, lines 23-45, the examiner notes that this is an intended use of the oscillator circuit), characterized in that a temperature sensor 52 is arranged in such a way that it is subjected to the same ambient temperature as the oscillator crystal (it is thermally connected; col.4,3-10), and that the temperature sensor 52 is electrically connected parallel to the terminals of the

crystal vibrator 44 and at least one coupling capacitor 56. Knutson does not explicitly disclose that the crystal is on the same carrier and the same side as the temperature sensor and is not separated by a wall. Knecht et al. discloses a crystal oscillator circuit with a enclosed in a housing in order to act as an RF shield (col.4,21-33). Knecht et al. also discloses the temperature sensor located on the same side of the carrier as the crystal vibrator and not separated by a wall in order to reduce errors (col.3,32-50; Fig.2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed the circuit of Knutson in a housing in order to have provided the benefits of an RF shield as well as placed the thermistor on the same side of the carrier and not separated by any walls in order to have provided the benefits of reduced errors.

Knecht et al. discloses a memory module (18) and a varactor (14) between the crystal (10) and the temperature sensor (16). Knecht et al. does not explicitly disclose that the temperature sensor is not separated by the oscillator crystal by intervening circuit elements. Gade et al. discloses placing a thermistor (43) directly next to an oscillating crystal (12) with no intervening circuit elements between in order to protect from thermal gradients (col.4,53-57). Furthermore, the mere rearrangement of parts as a design choice has been held to support a prima facie case of obviousness. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the temperature sensor closer to the crystal in the system of Knecht et al. as shown in the system of Gade et al. in order to provide the benefits of improved thermal gradient protection.

7. Claim 2: Knecht et al. discloses arranging the temperature sensor 16 in the oscillator crystal housing 52 (col.3,19-31; Fig.2) in order to provide the benefits as applied to claim 1 above.

8. Claim 3: Knecht et al. discloses that the temperature sensor is arranged of a printed circuit board (col.4,21-33) adjacent to the oscillator crystal housing 52 (The temperature sensor is inside the housing and adjacent to two walls; Fig.2) in order to provide the benefits as applied to claim 1 above.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knutson (U.S. Patent No. 3,581,239) in view of Knecht et al. (U.S. Patent No. 6,066,989) and Gade et al. (U.S. Patent No. 3,197,616) as applied to claim 1 above, and further in view of Anastasyev et al. (U.S. Patent No. 6,208,213). Knutson, Knecht et al., and Gade et al. disclose the limitations of claim 1, but do not explicitly disclose that the carrier exhibits openings between the heat-emitting circuit and the oscillator circuit. Anastasyev discloses using cut-outs 4 surrounding the heat emitting elements (Fig.2; col.4,28-34) in order to provide thermal insulation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used openings between the heat-emitting circuits and the oscillating circuits of Knutson in order to have provided the benefits of thermal insulation.

Allowable Subject Matter

10. Claims 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: A constant current or voltage source being applied to the temperature sensor in order to evaluate temperature, as required by claims 5 and 9, or an evaluation circuit with the sensor in order to determine temperature, as required by claim 6, and in the context of claim 1, could not be found in prior art.

Response to Arguments

11. Applicant's arguments with respect to amended claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan J. Johnson whose telephone number is 571-270-1264. The examiner can normally be reached on Monday - Thursday, 9:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RJJ/



Robert Pascal
Supervisory Patent Examiner
Technology Center 2800